



## Natural Resources

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98504

March 17, 1978

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DEPARTMENT OF ECOLOGY  
SPOKANE REGIONAL OFFICE

Department of Ecology  
Attn: Rys A. Sterling  
Environmental Quality Division  
E. 103 Indiana Avenue  
Spokane, WA 99207

Subject: Reclamation Plan--Callahan Mining Corporation



Dear Mr. Sterling:

We have examined the proposed reclamation plan submitted by Callahan Mining Corporation. In general, the plan appears reasonable and feasible.



The following comments are submitted for your consideration:

1. General experience in this state and other states shows that 1:1 slopes are not considered to be the best for permanent establishment of vegetation. A 2:1 or less is much better. In the case of heavy clays or highly compacted material the vegetation will form a blanket, but the roots do not penetrate the underlying material. The frequent result is the accumulation of moisture at the interface between the vegetative blanket and the underlying material. This commonly results in slippage of the vegetative blanket or mat.

Would recommend possible sloping of one or more sections of the levee during 1978 to various grades to establish capability of vegetation to survive and stability of the slopes, leaving the levee faces in a rough texture (depressions, etc.) may improve water catchment and success of vegetation.

2. Temporary straw dams may be of benefit in retarding sediment transport into Onion Creek. These would assist until reclamation has been completed and the area is stabilized.
3. Should the diversion ditch be constructed to a specified precipitation event? *Design should be specified.*



Your pictures are enclosed. Thank you for the opportunity to respond.



Sincerely,

BERT L. COLE  
Commissioner of Public Lands

Donald M. Ford, Assistant Supervisor  
Division of Ecology & Earth Resources

DMF:pa  
enclosures

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